



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,128	06/22/2001	Morris E. Jones, JR.	CT-P9191-D	9026

7590

04/18/2006

David B. Ritchie
THELEN REID & PRIEST LLP
P.O. BOX 640640
San Jose, CA 95164

EXAMINER

HARRISON, CHANTE E

ART UNIT

PAPER NUMBER

2628

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,128

Applicant(s)

JONES,, MORRIS E.

Examiner

Chante Harrison

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9,10,12-15,17,18,21,22,24-27,29-31,33-36,38,39 and 41-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9,10,12-15,17,18,21,22,24-27,29-31,33-36,38,39,41-51 and 53 is/are rejected.
- 7) ☒ Claim(s) 52 and 54-56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: Petition to Revive and RCE filed respectively on 2/14/05 and 2/9/05.

2. Claims 9-10, 12-15, 17-18, 21-22, 24-27, 29-31, 33-36, 38-39, 41-56 are pending in the case. Claims 9, 14, 21, 26, 30 and 35 are independent claims. Claims 9, 12, 14, 21, 24, 26, 30, 35 and 41 have been amended. Claims 51-56 have been added.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9, 10, 13, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kotha et al., U.S. Patent 5,521,614, 5/1996.

As per independent claims 9 and 21, Kotha discloses receiving a data element representing a row of a text character cell (col. 5, ll. 5-10); forming a horizontal expansion pattern corresponding to the text character, based on character code (i.e. expanding the character horizontally based on the display mode defining the number of dots for the character) (col. 5, ll. 38-65) and row number of the text character cell (col. 5, ll. 5-15, 34-36; col. 8, ll. 30-41; Fig. 13); and appending said horizontal expansion pattern to the second sequence of data elements (Fig. 2; col. 5, ll. 56-64). Kotha inherently teaches forming a horizontal expansion pattern based on the row number as he teaches a single VGA graphics controller for performing both horizontal and vertical expansion (Fig. 13 "1303"), by accessing image data from a particular video memory address (col. 5, ll. 5-10) that corresponds to a character font code at a particular row and column (col. 5, ll. 34-36); and repeatedly applying the expansion pattern to newly

Art Unit: 2628

accessed memory addresses of a next scan line or row (col. 8, ll. 20-45) to perform a full expansion of the character font (col. 6, ll. 41-46).

As per dependent claims 10 and 22, Kotha discloses the specified length is the same for all horizontal expansion patterns comprising said second sequence of data elements (col. 6, l. 40-46); and the second sequence of data elements fills a flat panel display (abstract; col. 4, ll. 49-51).

As per dependent claim 13, Kotha discloses the data element comprises eight bits (col. 5, ll. 42-45); and said horizontal expansion pattern comprises ten bits (col. 5, ll. 60-64).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14, 15, 18, 26, 27, 30, 31, 34, 35, 36, 39, 42, 45, 47, 49, 51, 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotha et al., U.S. Patent 5,521,614, and further in view of Bugg, U.S. Patent 5,016,000, 5/1991.

As per independent claims 14 and 26, Kotha discloses receiving a plurality of bits representing a plurality of text character cell lines (col. 5, ll. 5-10); determining the first and last bits for each data element within said first sequence (col. 5, ll. 56-59); forming a horizontal expansion pattern corresponding to said text character, said pattern set to a specified length (col. 5, ll. 50-55); appending said horizontal expansion pattern to the second sequence of data elements (Fig. 2; col. 5, ll. 56-64).

Kotha discloses a horizontal expansion pattern (col. 5, ll. 50-55) but fails to disclose the pattern contained in a lookup table indexed by character number and row number, which Bugg teaches (col. 3, ll. 10-26; col. 5, ll. 64-66).

Bugg teaches a video display terminal having selective memory access of a lookup table for providing character output data which includes the character shape pattern

information in respective memory cell matrices accessed in accordance with digital codes to replicate a cell line (col. 3, ll. 10-26; col. 4, ll. 56-66).

It would have been obvious to one of skill in the art to include Bugg's teaching of an expansion pattern contained in a lookup table indexed by character code corresponding to a character space pattern represented by bits and memory cell matrix containing rows with the method of Kotha because Kotha teaches accessing character expansion data via a VGA controller that accesses video memory storing addressable image data including character bit data (col. 5, ll. 1-15; col. 7, ll. 10-40), wherein a look-up table provides an efficient means of addressing data.

As per dependent claims 15, 27 and 36, Kotha discloses scanning said plurality of bits for repeating bit values at whole number multiples of eight or nine (col. 7, ll. 25-39; col. 5, ll. 44-45), said bit values corresponding to the background color (abstract; col. 7, ll. 21-25); setting the cell line bit length to said whole number multiple (col. 7, ll. 40-43; col. 5, ll. 44-45). Kotha fails to specifically disclose setting the first bit of a data element to the bit following said repeating bit value; and setting the last bit of a data element based on said first bit and said cell line bit length. It would have been obvious to one of skill in the art at the time of invention to include setting the first bit of a data element to the bit following said repeating bit value; and setting the last bit of a data element based on said first bit and said cell line bit length in the disclosure of Kotha because Kotha teaches triggering a repeat signal using the far right bit of the character and maintaining

the signal value for the horizontal length of the character which is determined as a result of the number of duplicated pixels (col. 7, ll. 20-45).

As per dependent claims 18, 39, 42, 45, 47 and 49, Kotha discloses determining whether a horizontal scan has completed (col. 7, ll. 15-25, 40-45); loading horizontal expansion information for the next row when a horizontal scan has completed (col. 7, ll. 15-22).

Kotha fails to disclose loading into VGA RAM a lookup table containing the information, which Bugg discloses (col. 3, ll. 20-25; col. 4, ll. 27-31, 56-66).

It would have been obvious to one of skill in the art at the time of invention to include Bugg's disclosure of loading into video memory the look-up table of digital codes addressing character space patterns and memory cell matrices data with the disclosure of Kotha because Kotha teaches accessing character expansion data via a VGA controller that accesses video memory storing addressable image data including character bit data (col. 5, ll. 1-15; col. 7, ll. 10-40), wherein a look-up table provides an efficient means of addressing data.

As per independent claims 30 and 35, Kotha discloses an apparatus for expanding a first sequence of data... The rationale as applied in the rejection of claims 14 and 26 applies herein.

As per dependent claim 31, Kotha discloses the specified length is the same for all horizontal expansion patterns comprising said second sequence of data elements (col. 6, l. 40-46); and the second sequence of data elements fills a flat panel display (abstract; col. 4, ll. 49-51).

As per dependent claim 34, Kotha discloses the data element comprises eight bits (col. 5, ll. 42-45); and said horizontal expansion pattern comprises ten bits (col. 5, ll. 60-64).

As per dependent claims 41, 43, 44, 46, 48 and 50, Kotha discloses the corresponding lookup table for the next row is loaded into the VGA RAM during horizontal blanking (i.e. a single VGA controller for pattern expansion displays the decoded the boundary of the character and resets for the display of another character after the blank scanlines are processed) (col. 5, 20-30; col. 7, ll. 10-15; col. 8, ll. 45-65; col. 9-10, ll. 45-15).

As per dependent claims 51 and 53, the rationale as applied in the rejection of claim 14 applies herein.

5. Claims 12, 17, 19, 24-25, 29, 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotha et al. in view of Bugg as applied to claims 11, 16, 18, 23, 28, 32 and 37 above and further in view of Bril et al., U.S. Patent 5,539,428, 7/1996.

As per dependent claims 12, 17, 24, 29, 33 and 38, Kotha teaches a VGA controller accessing stored character data from video memory storing addressable image data including character bit data (col. 5, ll. 1-15).

Kotha in view of Bugg fails to disclose the lookup table resides in layer 3 of VGA video RAM, which Bril discloses (Fig. 2; col. 5, ll. 15-25; col. 6, ll. 60-65).

Bril teaches a VGA controller having a video memory comprising multiple planes of which the third layer is used for storing font data.

It would have been obvious to one of skill in the art at the time of invention to include Bril's disclosure of a lookup table that resides in layer 3 of VGA video RAM in the disclosure of Kotha in view of Bugg because Kotha teaches performing video memory accesses, where use of the third layer of video memory would provide efficient use of all available memory.

As per dependent claim 25, Kotha discloses the data element comprises eight bits (col. 5, ll. 42-45); and said horizontal expansion pattern comprises ten bits (col. 5, ll. 60-64), in view of Bugg and further in view of Bril.

Art Unit: 2628

3. Claims 52 and 54-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 2/9/05 have been fully considered but they are not persuasive.

Applicant's argues Kotha does not teach the cell row number is used to form the horizontal expansion patter.

In reply, Kotha teaches forming a horizontal expansion pattern based on the row number as he teaches a single VGA graphics controller for performing both horizontal and vertical expansion (Fig. 13 "1303"), by accessing image data from a particular video memory address (col. 5, ll. 5-10) that corresponds to a character font code at a particular row and column (col. 5, ll. 34-36); and repeatedly applying the expansion pattern to newly accessed memory addresses of a next scan line or row (col. 8, ll. 20-45) to perform a full expansion of the character font (col. 6, ll. 41-46).

Applicant argues Kotha teaches away from the use of lookup tables.

In reply, Kotha teaches accessing character expansion data via a VGA controller that accesses video memory storing addressable image data including character bit data (col. 5, ll. 1-15; col. 7, ll. 10-40). Bugg teaches a video display terminal having selective memory access of a look-up table for providing character output data which includes the character shape pattern information in respective memory cell matrices accessed in accordance with digital codes to replicate a cell line (col. 3, ll. 10-26; col. 4, ll. 56-66).

Art Unit: 2628

Thus the inclusion of a lookup table as taught by Bugg with the method of Kotha provides an efficient means of addressing data.

Based on the above rationale, the claims do not patentably distinguish over the applied prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 571-272-7659. The examiner can normally be reached on Monday, Tuesday and Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chante Harrison
Examiner
Art Unit 2628

Ch
April 11, 2006

the row number being determined base on the horizontal frequency (col. 7, ll. 15-23)
said pattern set to a specified length (col. 5, ll. 50-55);

; and determining whether another data element should be read (col. 7, ll. 17-25).

Kotha inherently suggests that the cell row number is used to form the horizontal expansion pattern in that he teaches a shift register loaded with the binary data representative of the graphics data, where the graphics data are defined by row and column number, is used to indicate the position/row where replication will begin.



Kee M. Tung
Primary Examiner